

## COUNTERINTUITIVE IS BAD NEWS

There is an ancient truth that if you want to make your job look really important you surround it with barbed wire of obscurity. Baffle the bastards. Make it look as difficult as you can, and watch the plaudits flood in.

Why is *Bandolier* so toxic? Because *Bandolier* is unable to remember how to calculate sensitivity or specificity without looking it up on the CEBM website (<http://cebm.jr2.ox.ac.uk/>). They are thus defined as counterintuitive (nice rationalisation here for post middle-age deterioration). You all know that *Bandolier* feels much the same way about odds ratios, which are about as much use to the clinician as a wet muffler. But there at least we have NNTs to keep us warm.

So what's the moral? The moral is that methods of working which are muddling should be superseded by methods which are comprehensible. Down with sensitivity and specificity, and up with likelihood ratios and common sense.

## Not just *Bandolier*

It's not just *Bandolier* who finds these things difficult. A survey of US physicians showed that a whopping 96% do not use formal methods of assessing diagnostic tests or their results - not even likelihood ratios. There are lots of reasons why not, but probably, like *Bandolier*, they find them counterintuitive and stodgy, and they can't remember what a negative predictive value is.

## I want it NOW!

Another reason information on diagnostic tests isn't used is that it isn't available in any easy format, and especially not immediately available when it's needed. But if we can have knowledge that is relevant, valid and usable, and have it fast, then evidence gets used much, much more often than if it's not. That is the lesson from the "evidence cart" tested at Oxford's John Radcliffe Hospital (page 2).

## Waste of space

*Bandolier* encounters many people who think diagnostic testing is a waste of space. Countering that argument isn't easy. That is partly a reflection of the utility of diagnostic tests being wrapped in the barbed wire of obscurity. Partly it is lack of examples.

When *Bandolier* asked in a previous issue for good examples of the use of diagnostic tests, or tests which make a

difference, the answer was a deafening silence. None of the readers of the 25,000 copies or the 10,000 visitors a day to our Internet site seemed able to provide answers. *Bandolier's* own reading in some defined diagnostic areas produces profound feelings of despair that it is so uninformed and uninformative, and shame for occasionally having added to it.

## Future of diagnostic testing

That could be a bit of an oxymoron. Yet there's good news, too. There is evidence that we can make better use of our laboratories, and this month's *Bandolier* contains evidence that we can avoid swamping our labs with unnecessary diagnostic tests. There's also evidence on how to influence physicians effectively to use tests to their best advantage. And there's evidence elsewhere that senior physicians have the experience to order diagnostic tests appropriately.

The bottom line is that we are in a hole. As a famous Balliol politician once said (perhaps his only major contribution) "When you are in a hole, stop digging!" To treat properly we have to diagnose properly. Most doctors do a pretty reasonable job of that most of the time, in spite of the lack of a solid evidence base to help them.

We have to get back to basics, get some quality research done, and find practical and intuitive ways to help. A big job, urgently needed.

## How to do systematic reviews in pain

Date: Thursday 15 and Friday 16 April 1999  
Venue: Harris Manchester College, Oxford  
Cost: £200 including one night's accommodation  
Trainers: Henry McQuay, Andrew Moore and Phil Wiffen  
More info: Frances Fairman, Tel: (01865) 225762 Fax: (01865) 225400 E-mail: [frances.fairman@pru.ox.ac.uk](mailto:frances.fairman@pru.ox.ac.uk)

## In this issue

Evidence cart ..... p. 2  
How docs use tests ..... p. 3  
Using lab tests ..... p. 4  
Stops walking when talking predicts falls ..... p. 6  
Compression stockings ..... p. 6  
Book reviews ..... p. 5&8

*The views expressed in Bandolier are those of the authors, and are not necessarily those of the NHSE Anglia & Oxford*

# THE END OF THE BEGINNING

The quotation "I've seen the future and it works" was made by someone after a visit to the Soviet Union in 1919. You may think it apposite, though, after reading about how rapid availability of evidence makes its use more likely [1].

## Evidence cart

In order to find out whether it was feasible to bring evidence to the bedside of a general medicine in-patient service, an "evidence-cart" was constructed that would both contain the evidence thought to be helpful, and provide the means for projecting and printing it. The cart had a computer and projector, had available computerised information on previously assessed evidence of relevance to a busy medical team, as well as *Best Evidence*, Cochrane Library, MEDLINE, and pile of other useful information.

It was taken on rounds for a month, during which a log was kept of the ways it was used, and each team member (medical students to consultants) was asked to complete unannounced questionnaires about their use of evidence sources during and after that month.

## Results

It was used 98 times during the care of 166 inpatients and 30 more patients who were not admitted. Some evidence sources could be called up quickly enough (10-25 seconds) to be practical on the service. Sixteen clinical questions could be answered using the cart on the ward in the time taken for a visit to the library to answer only one of them.

Most searches were for evidence that could affect diagnostic and/or treatment decisions; the remainder concerned demonstrations of specific auscultatory findings (using a device that allowed several team members to listen to the

same stethoscope simultaneously) or concerned issues in biology or prognosis that would affect management decisions.

Over 90% of searches were successful. Those that were not formed the basis for "educational prescriptions" to search and appraise the evidence, and to add it to the previously-assessed in-house evidence resource. When assessed from the perspective of the most junior team member responsible for each patient's evaluation and management, 37 (52%) of the successful searches confirmed their current or tentative diagnostic or treatment plans, 18 (25%) led to a new diagnostic skill, an additional test or a new management decision, and 16 (23%) led to a change in a previous clinical skill, diagnostic test or treatment decision.

When the cart was removed, the perceived need for searching rose sharply (from 10 to 41 occasions in the 12 team members who remained on the service at the end of the month), but were carried out only in five (12%).

## Comment

A criticism of evidence-based medicine is that of time. We are busy, we don't have time to mess about with searching, or appraising, or calculating NNTs or odds ratios. All true. So make it available NOW! That's what the team at the Centre for Evidence-based Medicine in Oxford have done, made evidence instantly available - or at least within about 15 seconds.

If it's available, it's used. If not, it's not. From the ward where the evidence cart is used to one of the finest medical libraries in the UK is but a short step. Along the corridor, down one flight of steps, turn right and you are at the library door. Yet even that proved too much of a barrier when the evidence was not available on the cart.

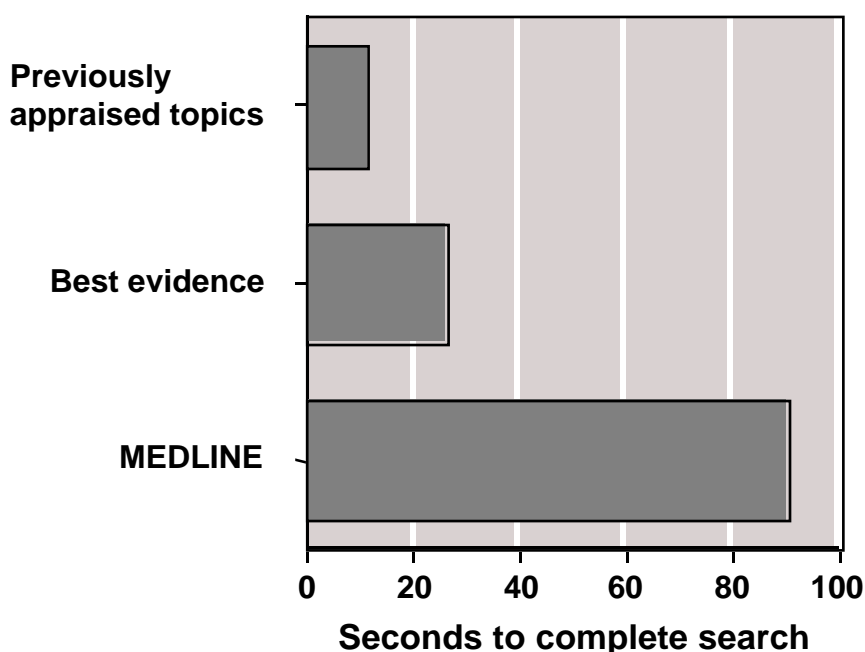
No surprise there. What is a revelation, though, is that judiciously combining electronic evidence from a variety of sources with summaries, reviewed and appraised, of commonly occurring problems (see CATmaker on <http://cebm.jr2.ox.ac.uk/docs/catbank.html>) can be done and can be so useful, especially to younger doctors still collecting their experiences to add to their education. What a gift! Youth, enthusiasm, plus experience. Someone should patent it.

We may have to wait before we can buy a "Docman" - a miniaturised supercomputer that fits in your pocket and puts the evidence in your ear or projects it onto your glasses before you even knew you needed it, but we've seen the future, and it works.

Reference:

1 DL Sackett, SE Strauss, for firm A of the Nuffield Department of Medicine. Finding and applying evidence during clinical rounds: The "evidence" cart. JAMA 1998 280: 1336-8.

Time to complete searches on the evidence cart



# How DOCS USE TESTS

Sensitivity, specificity, positive predictive value, likelihood ratio, relative operating characteristics (ROC). Words that fill most of us with a deep sense of dread. Turn offs.

That has always been how *Bandolier* feels when trying to make sense of another paper on diagnostic tests. What we look for, and never find, is that comforting word, pathognomonic (“characteristic of a disease, distinguishes it from other diseases” is how our ancient medical dictionary defines it). Trying to make sense of a test, to put it in context, is awful hard.

The task has been made no easier by a survey of US doctors [1] showing that almost none of them use these terms in any formal way.

## Study

A stratified random sample of physicians in six specialties with direct patient care (at least 40% of time with patients) across the USA was determined by researchers at Yale. These physicians were then contacted, by letter and telephone, and this resulted in a 10 minute telephone survey about their attitudes to formal methods of test use. They were told that interviewers were not necessarily advocates of the use of formal methods. There were 10 questions, reproduced in an appendix to the paper. An example of a question was (question 4):

*“Do you use test sensitivity and specificity values when you order tests or interpret test results?”*

## Results

There were 300 physicians in the final sample, 50 in each specialty. They had a mean age of 46 years, 80% were men, and they spent a median of 90% of their professional time providing direct patient care. They worked in a variety of settings.

The main result was that few of them used formal methods

of assessing test accuracy (Table). Bayesian methods were used by 3%, and ROC and likelihood ratio data by 1% each.

Although as many as 84% said they used sensitivity and specificity at some time, from adopting the use of a new test to using them when interpreting a diagnostic test result, this was almost always done in an informal way.

## Comment

There’s a film in which Michael Caine, as only he can, declaims “I don’t blame ‘em” in tones of indignation and contempt that completely captures *Bandolier*’s reaction to reading this paper (free copy of all of the first five years of *Bandolier* in PDF format to the first correct identification of the film). These results mirror the reaction of just about any medical audience to similar questions. Diagnostic tests are presented in ways that are neither intuitive nor useful.

The authors make a number of salient points:

- ◆ Information on test accuracy must be “instantly available” when tests are ordered.
- ◆ Formal training needs to be improved.
- ◆ Published information is mostly useless, because it usually fails to reflect the patient population in which the test is being used.

Diagnostic testing needs a new beginning. If the methods we have of expressing test accuracy don’t cut it, then we must find new ones that do. They must be understandable by the doc on the Clapham omnibus, relevant to a wide range of clinical situations and patient populations, easy to use in everyday practice, and instantly available. *Bandolier* has pointed out before that we spend perhaps £1.6 billion on laboratory testing in the NHS. If the results are being used with super-sub-maximal efficiency, then why are we bothering?

Reference:

- 1 MC Reid, DA Lane, AR Feinstein. Academic calculations versus clinical judgements: practicing physicians’ use of quantitative measures of test accuracy. *American Journal of Medicine* 1998 104: 374-80.

### Frequency of use of methods of assessing test accuracy: 50 physicians in each category

|                        | Bayesian method | ROC curve | Likelihood ratios |
|------------------------|-----------------|-----------|-------------------|
| Specialist physician   | 5               | 1         | 1                 |
| Generalist physician   | 2               | 0         | 1                 |
| Paediatrician          | 1               | 1         | 0                 |
| General surgeon        | 0               | 1         | 0                 |
| Family practice        | 0               | 0         | 0                 |
| Obstetrics/Gynaecology | 0               | 0         | 0                 |
| Overall percentage     | 3%              | 1%        | 1%                |

## USING LABS BEST

*Bandolier* 55 reported on a systematic review of laboratory test use which showed that a up to a third of tests were ordered for inappropriate purposes. The question left hanging was that of how to change behaviour to prevent silly requesting, and perhaps save rather significant sums, improve value for money, and reduce the huge loads placed on our hard-working laboratories.

Two more studies have swum into our ken, one a systematic review of interventions [1], the other a retrospective analysis of changes made in Ontario in the 1990s [2]. They give a powerful and positive message, that behaviour can be changed to the benefit of all.

### What changes behaviour?

In their review, Solomon and colleagues [1] searched the English-language literature using several databases for studies to modify diagnostic test behaviour. Studies reviewed had to examine behaviour with an intervention and control and look at tests used for diagnostic procedures, and not just screening.

Because this is a difficult area where the normal rules of randomised trials may not always apply, they created their own set of methodological standards and applied them (blinded) to the 49 studies which met their inclusion criteria. The maximum score was 38 points.

### Results

There were only eight randomised studies, and the overall methodological quality was low, with a mean of 13 out of a possible 38 points. The majority (67%) of the studies targeted physicians in training, only 37% observed the results

for 12 months or longer and only 45% looked at the impact on test ordering when the intervention had ended.

Reductions in test ordering by volume or cost was reported in 76% of the studies. The most impressive was that 86% of studies which looked at more than one behavioural change reported a reduction in test ordering. Audits used in conjunction with interventions designed to remove barriers to behaviour change were highly successful, with nine of 12 reporting reduced test ordering.

All of the interventions which used multiple lever strategies which addressing education, skills and barriers, and with feedback, were successful.

### Making behaviour change

van Walraven and colleagues [2] examined the problem from a different perspective - looking back to see what the impact of a number of guidelines, test-ordering form and policy changes had been on the ordering of tests in Ontario. The background was an increase of 9.4 to 17.4 tests per person per year between 1976 and 1993.

Guidelines developed and introduced between 1991 and 1997 by expert panels were considered, and the effect on test ordering of erythrocyte sedimentation rate (ESR), renal dysfunction (microscopy, creatinine and urea), iron stores (iron and ferritin) and thyroid tests (TSH, T4-uptake) examined. Six tests (haemoglobin, glucose, sodium, uric acid, copper and aldolase) representing high, medium and low rates of use, and for which no guidelines were introduced, were used as controls.

### Results

Over the years 1991 to 1997 there was no change in age and sex standardised rates of use of any of the six control tests.

#### Effect of policy, guideline and test form changes on test ordering

| Clinical area       | Intervention                                  | Tests   | Effect of intervention  |
|---------------------|---|---|---|
| Haematology         | Change in form plus guidelines                | ESR   | 58% drop in requests (from 2000 to 500 per 100,000 persons)                                     |
| Renal dysfunction   | Policy changes, guidelines and change in form | Urinalysis ± microscopy                           | Increase in urinalysis without microscopy and decrease in urinalysis with microscopy            |
|                     |   | Urea  | Large reduction in urea tests, from about 1800 to 400 per 100,000 persons                       |
|                     |   | Creatinine  | No significant increase   |
| Iron stores         | Policy and guidelines                         | Iron binding                                      | 80% decrease in iron tests  |
|                     |   | Ferritin  | Ferritin not significantly increased  |
| Thyroid dysfunction | Guidelines, policy changes and change in form | Thyroxine and triiodothyronine resin uptake tests | Over about three years total thyroxine tests fell from about 1300 per 100,000 to virtually zero |
|                     |   | TSH   | No significant increase in TSH tests  |



By contrast, the effects of a variety of interventions made a big difference:

For ESR, removing a tick box from a request form plus guidelines discouraging ESR for asymptomatic patients led to a reduction from about 2000 to 500 tests per year per 100,000 population (Table).

For renal dysfunction tests, guidelines and policy changes stressing the need for urine microscopy only when actually ordered led to changes (Table). Changes to request forms and guidelines stressing that urea was not needed in most situations led to a reduction by about 75% in urea requests with no increase in creatinine requesting.

Laboratories combined the restriction on iron and iron binding capacity tests with a guideline recommending ferritin testing alone to investigate iron deficiency led to an 80% iron tests with no significant increase in ferritin (Table).

Guidelines, policy changes and changes to requisition forms led to an almost complete elimination of thyroid uptake tests, without any concomitant increase in TSH tests when TSH alone was recommended.

## Comment

Taken together these two papers show that diagnostic testing patterns of physicians can be changed, and that changes can have big consequences. Making an effective change usually means looking at not a single intervention, but several together. Problems are often multi-factorial, so addressing one aspect of the problem will usually fail.

In an accompanying editorial, the then editor of JAMA, George Lundberg, provides words of wisdom [3]. He gives a list of how to do things (truncated by *Bandolier*):

- 1 Know the literature and be certain you know the right things to do (have an evidence base, in other words).
- 2 Get a cohort of influential physicians on your side to agree the proposed changes.
- 3 Get on and do it, once you have agreement, and don't waste time on wider consultation.
- 4 Education is important, so don't squirrel the knowledge, but let everyone know why you are doing what you are doing.
- 5 Enjoy the ride, and be open about criticisms. React positively to valid complaints.
- 6 Enjoy the success of providing a better, cheaper, faster and more effective diagnostic service.

Perhaps should be added another point - that of knowing that every effective change leaves some room for the next one. van Walraven's article makes the point that the changes in Ontario were calculated to save about 700,000 test request over about three or four years. Not much in money terms, because tests are cheap. But laboratories suffer enormous workloads, and just the thought of handling that many tests and samples makes one weak. Reducing the load means creating some small room for doing even better than we do now, and some space to think about the next step.

These may be "just" management issues, but knowing what works and why opens the door to making laboratories more effective and more important.

## References:

- 1 DH Solomon et al. Techniques to improve physicians' use of diagnostic tests. JAMA 1998 280: 2020-7.
- 2 C van Walraven et al. Effect of population-based interventions on laboratory utilization. JAMA 1998 280: 2028-33.
- 3 GD Lundberg. Changing physician behaviour in ordering diagnostic tests. JAMA 1998 280: 2036.

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## BOOK REVIEW

Pete Moore. *Pregnancy: A Testing Time*. Lion, 1997, 160pp, £7.99. ISBN: 0 7459 3819 1

A concise and clear description of the tests available to mothers during pregnancy in order to assess the health of the developing baby and the issues surrounding decision-making for parents before and after the tests.

Topics such as the status of the developing baby; the tests available to monitor both mother and baby during pregnancy; information on specific diseases and disorders; and decision-making before and after tests are covered in the eight chapters in the book. Several case studies are also included which focus on real-life accounts of antenatal testing, the subsequent results and their consequences. A glossary of terms and an index serve to provide a quick reference point.

Each antenatal test is described in detail: how and when the test is carried out, its purpose, risk and possible interpretations and limitations of the results. More complex issues such as statistics and genetics are described simply, meaningfully and without jargon. There is a wealth of information to address the moral and ethical considerations and arguments surrounding testing.

The author makes no attempt to bias the reader in favour of or against testing, or gives guidance as to what choices should be made.

As a recent mother and hopefully future expectant mother I found this book interesting and thought provoking. It provided information which I would have valued during my first pregnancy, although it also brought home some facts which at the time might have made me more anxious. Some of the case studies were very emotive and stressed the importance of decision-making associated with antenatal testing.

Not every expectant mother or father will want to be read this book. There are many families who would benefit from reading it, and I would hope that this text could be offered to prospective parents by their antenatal clinic or doctor's surgery early in pregnancy.

Louise Jackson

## “STOPS WALKING WHEN TALKING”

One of *Bandolier*'s colleagues bemoaned the difficulty of deciding for which patient to prescribe hip protectors to try and prevent fractures – identified as useful for injury prevention [1]. The key prescribing point turned out to be a judgement of whether the patient was likely to use them or not.

Selecting patients most likely to fall would be another important factor. A simple test comes from Sweden [2].

### The observation

This was that some frail elderly people stopped walking when starting a conversation. Presumably this is because the attention needed to hold a conversation made a demand, and that the “resources” available were insufficient to do two things at once.

### The study

Residents (mean age 80 years; 72% women) in sheltered accommodation in Umeå who were able to walk with or without aids and able to follow simple instructions were included. Some had dementia, others a previous stroke, and some were depressed. They were observed by physiotherapists who noted whether they stopped walking when a conversation started. Falls during a six-month follow up were noted.

### The results

There were 58 patients, of whom 12 stopped walking when talking. In the next six months 10 of these had at least one fall. Of the 46 patients who kept walking when talking, 11 had a fall in the next six months.

The overall prevalence of falls in this population was 21 of 58 patients, or 36%. The likelihood ratio of a positive test (stopped walking when talking) was 10, so that the post-test probability of a fall over the next six months with a positive test was 90%. With a negative test (carried on walking when talking), the post-test probability of a fall over the next six months was 18%.

### Comment

Of course this is only one small observational study in a group of frail elderly people at high risk of falls. But it is an exemplar of a simple, zero-cost observation that can identify people of high risk of fall, for whom special action could be taken to reduce that risk. Hip fracture is devastating (*Bandolier* 49): avoiding it is a good thing.

#### References:

- 1 R Lyons et al. Injury Prevention. Health Evidence Bulletins Wales, September 1998.
- 2 L Lundin-Olsson, L Nyberg, Y Gustafson. “Stops walking when talking” as a predictor of falls in elderly people. *Lancet* 1997 349: 617.

## COMPRESSION STOCKINGS

Another example of using the NNT worksheet in issue 59 is shown on page 7. Consecutive patients with a first episode of venogram-proven deep vein thrombosis were randomised to use of a made-to-measure graduated compression stocking or to no stocking in preventing post-thrombotic syndrome [1], and followed up for a minimum of 60 months.

### Outcome

Independent nurses examined patients at three-month intervals for compliance and for recurrent symptoms of venous thromboembolism. Post-thrombotic syndrome was measured on a number of pre-determined subjective criteria (pain in calf, for instance, or leg oedema) and on objective criteria (for example calf circumference, venous ulcer). A mild-to-moderate disease was defined as a score of 3 or more plus one objective symptom, with severe disease defined as a score of four or more; to qualify these had to occur on two consecutive three-month follow up visits.

### Results

Patients were mostly men (56%) with an average age of 60 years. Ninety-six had stockings and 98 no stockings. Of those in the stockings group, compliance checks showed that all but seven wore their stockings most of the time.

Over a minimum period of 60 months, 19 patients with stockings had mild-to-moderate post-thrombotic syndrome, of whom six went on to have severe disease. Another five developed severe post-thrombotic syndrome without mild-to-moderate disease first. Overall, 72 of 96 patients (75%) were free of post-thrombotic syndrome at 60 months.

Over the same period, 46 patients with stockings had mild-to-moderate post-thrombotic syndrome, of whom 23 went on to have severe disease. Another 13 developed severe post-thrombotic syndrome without mild-to-moderate disease first. Overall, 39 of 98 patients (40%) were free of post-thrombotic syndrome at 60 months.

For every three patients with proximal deep vein thrombosis treated for five years with made-to-measure graduated compression stockings, one will not develop at least mild post-thrombotic syndrome - NNT 2.9 ( 2.1 to 4.5).

### Comment

This is one trial, albeit with a large effect and reasonable numbers. The NNT is calculated from all patients randomised, and about 20 died or were lost to follow up in each group. The NNT worksheet, once done, could be added to others to create a firm or practice list of easily-available evidence, just as on the evidence cart (page 2).

#### Reference:

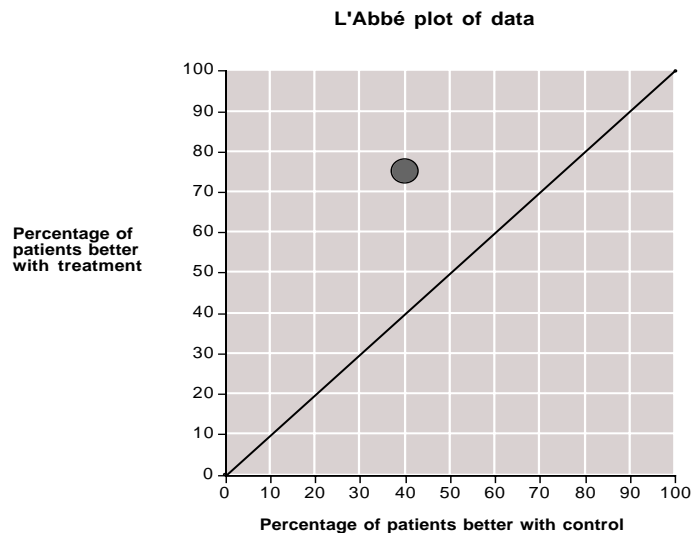
- 1 DP Brandjes et al. Randomised trial of effect of compression stockings in patients with symptomatic proximal-vein thrombosis. *Lancet* 1997 349: 759-62.

## Bandolier's NNT worksheet

A number needed to treat (NNT) is defined by a number of characteristics. This worksheet is designed as an aide memoir for working out NNTs from papers and systematic reviews. First fill in the answers to the questions, where appropriate, graph the data on the L'Abbé plot, and finally do the NNT calculation.

|          | Question/Action   | Answer  |
|----------|---|---|
| <b>A</b> | What is the intervention (ie drug dose & frequency)?                      | <i>Made-to-measure compression stockings</i>            |
| <b>B</b> | What is the intervention for?   | <i>Prevent any post-thrombotic syndrome</i>             |
| <b>C</b> | What is the successful outcome (and when or over what time did it occur)? | <i>Prevention of any event over at least five years</i> |
| <b>D</b> | How many had the intervention?  | 96  |
| <b>E</b> | How many had successful outcome with the intervention?                    | 72  |
| <b>F</b> | Express this as a percentage (100 x E/D) and as a proportion (E/D)        | 75% or 0.75   |
| <b>G</b> | What is the control or comparator?  | <i>No stockings</i>                                     |
| <b>H</b> | How many people had the control?  | 98  |
| <b>I</b> | How many had successful outcome with the control?                         | 39  |
| <b>J</b> | Express this as a percentage (100 x I/H) and as a proportion (I/H)        | 40% or 0.40   |

Now graph the percentages for the trial on the graph from the *percentages* from F and J. This can be done for different outcomes of a trial, or individual trials in a systematic review or meta-analysis.



Now calculate the NNT using the *proportions* from F and J.

$$\text{NNT} = \frac{1}{\boxed{F} - \boxed{J}} = \frac{1}{\boxed{0.75} - \boxed{0.40}}$$

$$\text{NNT} = \frac{1}{\boxed{0.35}} = \boxed{2.9}$$

## BOOK REVIEWS

### Big fleas and all that

William H McNeill. *Plagues and Peoples*. Basil Blackwell, Oxford, 1977. ISBN 0-631-17880-5.

In about 542 in the reign of Justinian there occurred perhaps the first outbreak of bubonic plague in Europe. In Constantinople people were dying at a rate of about 10,000 a day - at its peak it was 16,000 in one day. Overall the mortality was about 40%, killing some 300,000 people in the city. The effects throughout the rest of the Byzantine empire were similar, and it spread through the former (Western) parts of the Roman empire with similar results. There has even been a suggestion that the collapse of post-Roman Britain had more to do with the visitation of the Justinian plague than the arrival of the Saxons.

Whenever a new disease has visited a human population in modern (the last 2000 years) times, the effects have been devastating. Mortality rates of 30-50% are often quoted for the immediate visitation. But a feature of plagues (and not just bubonic plague) has been their re-occurrence at intervals, and a collapse of population and economies. Estimates for the 14th century plague in England include a fall in population of 85% in the ensuing century.

Devastation occurred for the Roman and Chinese empires in the third and fourth centuries, both from a population peak of about 50 million. American Indians and Pacific islanders have been ravaged in more recent times.

What William McNeill, a celebrated Chicago historian, did in his book "Plagues and Peoples", written nearly a quarter of century ago, was to examine the effects of disease on history. The language may be slightly florid for modern tastes, and the microbiology and genetics hardly cutting edge today, but for anyone who is interested in history, and also in disease, this opens a window previously barred.

It is the detail that is so interesting: the presence of Roman traders in Pondicherry at the end of the Republic (and not long later visiting China by travelling up the Irawaddy, though that's from Encyclopaedia Britannica). There's also the tale about the outbreak of bubonic plague in China in 1911, brought about by incomers catching and skinning infected marmots which the nomad tribespeople left well alone because of ritual taboo. If any marmot colony showed signs of sickness, custom required the human community to move away to avoid bad luck.

You are unlikely to get this book in the local bookshop, but a reference library may find it for you. If you are lucky enough to find a copy, try reading it first, and then delve into John Julius Norwich's Byzantium trilogy to compare and contrast how these two historians treat the impact of disease on history.

### Out of mind, out of sight

Mount Misery by Samuel Shem. Black Swan £7.99 ISBN 0-552-99813-3

Samuel Shem wrote *House of God* (ISBN 0-552-99122-8). This 1978 book followed interns through their year in Beth Israel Boston. Shem told it like it is, and these threads were then picked up in *St Elsewhere's* and *Cardiac Arrest*. *House of God* is one of the best medical novels of the century, and when Shem spoke to a medical student audience in Oxford three weeks ago it was amazing how many of the students had read the book. Shem did for medicine what Upton Sinclair's "The Jungle" did for the meat trade in Chicago early in the century.

*Mount Misery* follows Dr Basch through his psychiatric residency at Misery in Boston. He rotates through alcohol and drug recovery, through psycho-pharmacology, borderlines and the analytic unit. Yes it is American. Basch is told that the first question in the psychiatric interview is "What is your insurance coverage?". But this book is deeper than the *House of God*. The one on one doctor patient encounters are relevant to all of us doing talk therapy, and are done with insight above the humour. The nightmares and the satisfactions of psychiatry are laid out for you. As in the *House of God* Shem gives us laws, and the thirteen laws of *Mount Misery* are:-

- I. There are no laws in psychiatry.
- II. Psychiatrists specialise in their own defects.
- III. At a psychiatric emergency, the first procedure is to check your own mental status.
- IV. The patient is not the only one with the disease, or without it.
- V. In psychiatry, first comes treatment, then comes diagnosis.
- VI. The worst psychiatrists charge the most, and world experts are the worst.
- VII. Medical school is a liability in becoming a psychotherapist.
- VIII. Your colleagues will hurt you more than your patients.
- IX. You can learn everything about a person by the way he or she plays a sport.
- X. Medical patients don't take their medication fifty percent of the time, and psychiatric patients don't take their medication much at all.
- XI. Therapy is part of life, and vice versa.
- XII. Healing in psychotherapy has nothing to do with psychology; connection, not self, heals.
- XIII. The delivery of psychiatric care is to know as little as possible, and to understand as much as possible, about living through sorrows with others.

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